

**Section 6.3: Additional Problems**

1) Set up the integral(s) that would give the volume of the solid obtained by rotating the region bounded by the given curves around the  $x = -2$

$$y = -2x + 12$$

$$y = 0.5x^2 - 4x + 6$$

2) Set up the integral(s), using both methods washer/disk and cylindrical shells, that would give the volume of the solid obtained by rotating the region bounded by the following around  $y = 4$ . Compute this volume using the method that seems the easiest.

$$y = \sqrt{x-2}$$

$$y = 0$$

$$x = 6$$

3) Set up the integral(s), using both methods washer/disk and cylindrical shells, that would give the volume of the solid obtained by rotating the region bounded by the following around  $x = -3$ . Compute this volume using the method that seems the easiest.

$$y = \sqrt{x-2}$$

$$y = 0$$

$$x = 6$$